
NMS-873

产品编号: D50831

CAS: 1418013-75-8

分子式: C₂₇H₂₈N₄O₃S₂

纯度: ≥98%

InChi: InChi=1S/C₂₇H₂₈N₄O₃S₂/c1-19-16-22(11-14-25(19)20-9-12-24(13-10-20)36(2,32)33)34-18-26-29-30-27(35-23-7-3-4-8-23)31(26)21-6-5-15-28-17-21/h5-6,9-17,23H,3-4,7-8,18H2,1-2H3

InChi Key: UJGTUKMAJVCBIS-UHFFFAOYSA-N

Smiles: CC1C=C(C=CC=1C1C=CC(=CC=1)S(C)(=O)=O)OCC1=NN=C(SC2CCCC2)N1C1C=NC=CC=1

外观: 固体粉末

作用通路: p97

溶解性: DMSO up to 10 mM

保存条件: Store in dry, dark place for one year.

产品介绍: NMS-873 is a potent and specific small molecule allosteric inhibitor of the ATPase VCP/p97 (IC₅₀ ~0.03 μM), identified by a high-throughput screening. It is very selective (IC₅₀ >10 μM) against all of the AAA ATPases, HSP90 or the 53 kinases tested. Using photo-affinity labeling, structural analysis and mutagenesis, the binding site of NMS-873 was found to be a region spanning the D1 and D2 domains of adjacent protomers encompassing elements important for nucleotide-state sensing and ATP hydrolysis. NMS-873 activated the unfolded protein response, interfered with autophagy, and induced cancer cell death. NMS-873 provided critical validation of VCP as a cancer target, and it raises the possibility that targeting VCP might prevent proteasome inhibitor-resistant tumors from escaping through the aggresome-autophagy pathways and cause them to collapse under the high load of unfolded proteins.